





ATG GGG GGT TCT CAT CAT CAT CAT CAT GGT ATG GCT AGC ATG GAT TAC AAG GAC GAC GAT GAT ATC GAA GGT CGC Met Gly Gly Ser His His His His His His Gly Met Ala Ser Met Asp Tyr Lys Asp Asp Asp Asp Ile Glu Gly Arg

Lys Gly Val Ser 11e Asp Lys Phe Arg 11e Phe Cys Lys Ala Asn Pro Lys Lys Gly Leu Lys Phe 11e 11e Lys Arg AAA GGT GTT TCC ATC GAC AAA TTC CGT ATC TTC TGC AAA GCT AAC CCG AAA AAA GGT CTG AAA TTC ATC ATC AAA CGT

Tyr Thr Pro Asn Asn Glu lie Asp Ser Lys Gly lie Arg Glu Asp Asn Asn lie Thr Leu Lys Leu Asp Arg Cys Asn TAC ACC CCG AAC AAC GAA ATC GAC TCC AAA GGT ATC CGT GAA GAC AAC AAC ATC ACC CTG AAA CTG GAC CGT TGC AAC

AAC AAA GGT GAA AAG AAG ATC GCT AAA ATG GAA AAA GCT TCT TCT GTT TTC AAC GTT GTT AAC TCT AAA GGT TTC AAC Asn Lys Gly Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn Val Val Asn Ser Lys Gly Phe Asn

Asn Phe Thr Val Ser Phe Tro Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu Lys Gly Gln Tyr Ile Lys Ala AAC TTC ACC GTT TCC TTC TGG CTG CGT GTT CCG AAA GTT TCC GCT TCC CAC CTG GAA AAA GGT CAG TAC ATC AAA GCT

AAC TCC AAA TTC ATC GGT ATC ACC GAA AAA GGT GGA TCC TAA GIn Ser Lys Phe Ile Gly Ile Thr Glu Lys Gly Gly Ser End

### **FIG. 2A**



### N N



ATG GGG GGT TCT CAT CAT CAT CAT CAT GGT ATG GCT AGC ATG GAT TAC AAG GAC GAC GAT GAT ATC GAA GGT CGC Met Gly Gly Ser His His His His His His Gly Met Ala Ser Met Asp Tyr Lys Asp Asp Asp Asp Ile Glu Gly Arg

Lys Gly Val Ser 11e Asp Lys Phe Arg 11e Phe Cys Lys Ala Asn Pro Lys Lys Gly Leu Lys Phe 11e 11e Lys Arg AAA GGT GTT TCC ATC GAC AAA TTC CGT ATC TTC TGC AAA GCT AAC CCG AAA AAA GGT CTG AAA TTC ATC ATC AAA CGT

TAC ACC CCG AAC AAC GAA ATC GAC TCC AAA GGT ATC CGT GAA GAC AAC AAC ATC ACC CTG AAA CTG GAC CGT TGC AAC Tyr Thr Pro Asn Asn Glu lle Asp Ser Lys Gly lle Arg Glu Asp Asn Asn lle Thr Leu Lys Leu Asp Arg Cys Asn AAC AAA GGT GAA AAG AAG ATC GCT AAA ATG GAA AAA GCT TCT TCT GTT TTC AAC GTT GTT AAC TCT AAA GGT TTC AAC Asn Lys Gly Glu Lys Lys 11e Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn Val Val Asn Ser Lys Gly Phe Asn AAC TTC ACC GTT TCC TTC TGG CTG CGT GTT CCG AAA GTT TCC GCT TCC CAC CTG GAA AAA GGT CAG TAC ATC AAA GCT Asn Phe Thr Val Ser Phe Tro Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu Lys Gly Gln Tyr Ile Lys Ala

### FIG. 2B

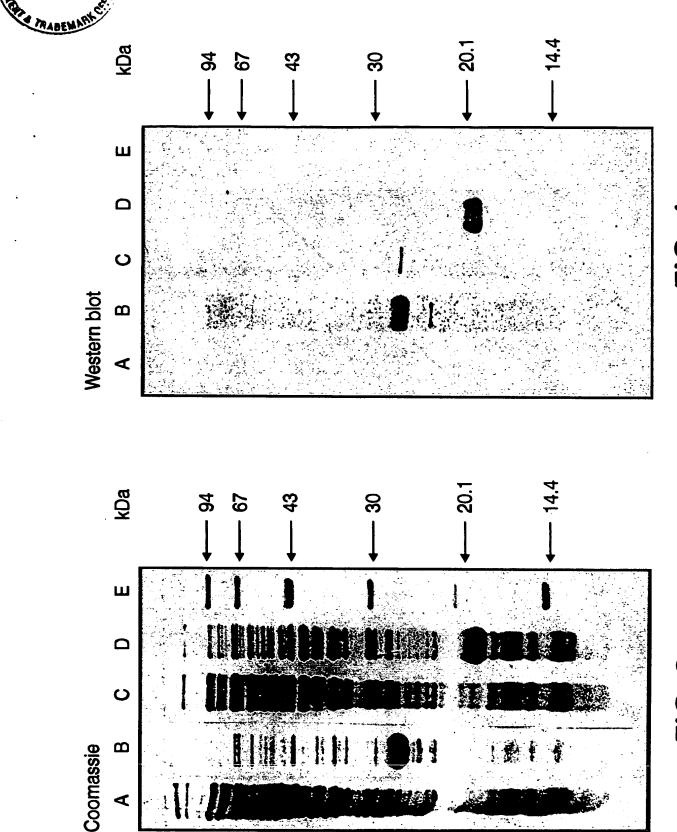


Gin Ser Lys Phe Ile Gly Ile Thr Glu Lys Gly Gly Ser Pro His His Thr Ala Leu Arg Gln Ala Ile Leu Cys Tro AAC TCC AAA TTC ATC GGT ATC ACC GAA AAA GGT GGA TCT CCG CAT CAT ACC GCG CTG CGC CAG GCG ATT CTG TGC TGG

GGC GAA CTG ATG ACC CTG GCG AAA GGA TCT CCG AAA TAT GTG AAA CAG AAC ACC CTG AAA CTG GCG ACC AAA GGA TCG Gly Glu Leu Met Thr Leu Ala Lys Gly Ser Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr Lys Gly ITT TIT CTG CTG ACC CGC ATT CTG ACC ATT CCG CAG TCT CTG GAT AAA GGC TAT TCT GGC CCG CTG AAA GCG GAA ATT lle Leu Thr 11e Pro Gin Ser Leu Asp Lys Gly Tyr Ser Gly Pro Leu Lys Ala Glu 11e Phe Phe Leu Leu Thr Arg

GCG CAG CGC CTG GAA GAT GTG AAA GGA TCC TAA Ala Gln Arg Leu Glu Asp Val Lys Gly Ser End

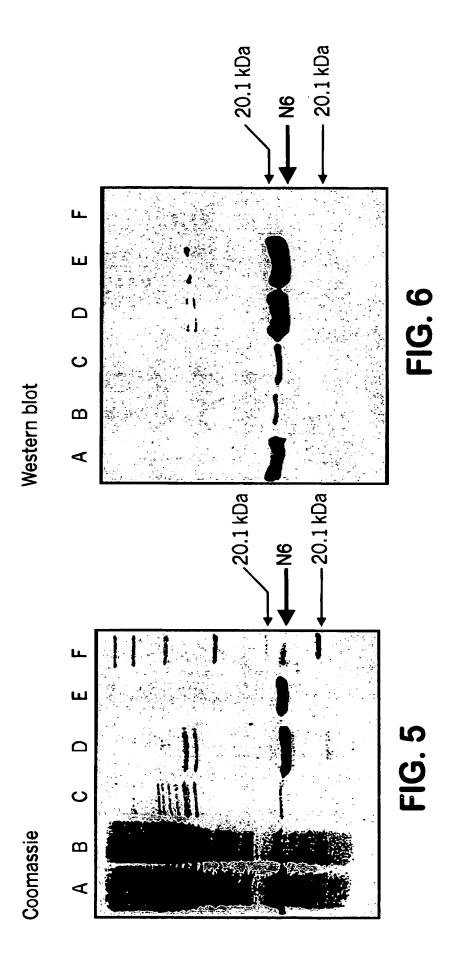
FIG. 2C



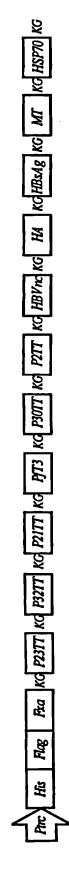
. . .

FIG. 4









AUG 3 0

GGG GGT TCT CAT CAT CAT CAT CAT GGT ATG GCT AGC ATG GAT TAC AAG GAC GAC GAT GAT ATC GAA GGT CGC GLY GLY SER HIS HIS HIS HIS HIS HIS HIS GLY MET ALA SER MET ASP TYR LYS ASP ASP ASP ILE GLU GLY ARG MET

CG CTG AAA TTC ATC ATC AAA ILE LEU LYS PHE GTT TCC ATC GAC AAA TTC CGT ATC TTC TGC AAA GCT AAC CCG AAA AAA GGT VAL SER ILE ASP LYS PHE ARG ILE PHE CYS LYS ALA ASN PRO LYS LYS GLY AAA GGT GLY LYS

TAC ACC CCG AAC AAC GAA ATC GAC TCC AAA GGT ATC CGT GAA GAC AAC AAC ATC ACC CTG AAA CTG GAC CGT TGC AAC TYR THR PRO ASN ASN GLU ILE ASP SER LYS GLY ILE ARG GLU ASP ASN ASN ILE THR LEU LYS LEU ASP ARG CYS ASN

TTC AAC PHE ASN GAA AAG AAG ATC GCT AAA ATG GAA AAA GCT TCT TCT GTT TTC AAC GTT GTT AAC TCT AAA GGT GLU LYS LYS LYS LYS MET GLU LYS ALA SER SER VAL PHE ASN VAL VAL ASN SER LYS GLY LYS GLY AAC AAA GGT ASN

SCI ALA TIC ACC GIT ICC TIC IGG CIG CGI GIT CCG AAA GIT ICC GCT ICC CAC CIG GAA AAA GGI CAG TAC AIC AAA PHE THR VAL SER PHE TRP LEU ARG VAL PRO LYS VAL SER ALA SER HIS LEU GLU LYS GLY GLN TYR ILE LYS AC ASN

 $\mathbf{TGG}$ TRP TCC AAA TTC ATC GGT ATC ACC GAA AAA GGT GGA TCT CCG CAT CAT ACC GCG CTG CGC CAG GCG ATT CTG SER LYS PHE ILE GLY ILE THR GLU LYS GLY GLY SER PRO HIS HIS THR ALA LEU ARG GLN ALA ILE LEU

# FIG. 7A



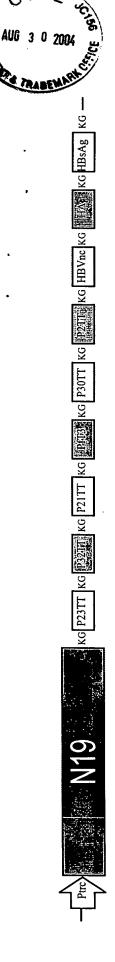
GGC GAA CTG ATG ACC CTG GCG AAA GGA TCT CCG AAA TAT GTG AAA CAG AAC ACC CTG AAA CTG GCG ACC AAA GGA TCG GLY GLU LEU MET THR LEU ALA LYS GLY SER VAL LYS GLN ASN THR LEU LYS LEU ALA THR LYS GLY SER

TIT III CIG CIG ACC CGC AIT CIG ACC AIT CCG CAG ICT CIG GAI AAA GGC TAI ICT GGC CCG CIG AAA GCG GAA AII PHE PHE LEU LEU IHR ARG ILE LEU THR ILE PRO GLN SER LEU ASP IXS GLY IYR SER GLY PRO LEU LYS ALA GLU ILE

GCG CAG CGC CTG GAA GAT GTG AAA GGA TCT CAG CCG TCT GTT CAG ATT CAG GTG TAT CAG GGT GAA CGT GAA ATC GCA ALA GLN ARG LEU GLU ASP VAL LYS GLY SER GLN PRO SER VAL GLN ILE GLN VAL TYR GLN GLY GLU ARG GLU ILE ALA

TCT CAT AAC AAA GGA TCC TAA SER HIS ASN LYS GLY SER END

**FIG. 7B** 



CGC ARG GGT ILE GLU GLY GAS ATC GGT ATG GCT AGC ATG GAT TAC AAG GAC GAC GAT GAT GLY MET ALA SER MET ASP TYR LYS ASP ASP ASP GGG GGT TCT CAT CAT CAT CAT CAT GLY GLY SER HIS HIS HIS HIS HIS HIS MET ATG

TCC ATC GAC AAA TTC CGT ATC TTC TGC AAA GCT AAC CCG AAA AAA GGT CTG AAA TTC ATC ATC AAA CGT SER ILE ASP LYS PHE ARG ILE PHE CYS LYS ALA ASN PRO LYS LYS GLY LEU LYS PHE ILE ILE LYS ARG GII LYS GLY VAL GGT AAA

TGC AAC CYS ASN ATC CGT GAA GAC AAC AAC ATC ACC CTG AAA CTG GAC CGT PRO ASN ASN GLU ILE ASP SER LYS GLY ILE ARG GLU ASP ASN ASN ILE THR LEU LYS LEU ASP ARG TAC ACC CCG AAC AAC GAA ATC GAC TCC AAA GGT TYR

TTC AAC PHE ASN GGT GAA AAG AAG ATC GCT AAA ATG GAA AAA GCT TCT TCT GTT TTC AAC GTT GTT AAC TCT AAA GGT GLY GLU LYS LYS ILE ALA LYS MET GLU LYS ALA SER SER VAL PHE ASN VAL VAL ASN SER LYS GLY LYS ASIN

ALA ITC ACC GIT ICC IIC IGG CIG CGI GIT CCG AAA GIT ICC GCI ICC CAC CIG GAA AAA GGI CAG IAC AIC AAA TYR OLIN SER ALA SER HIS LEU GLU LYS GLY SER PHE TRP LEU ARG VAL PRO LYS VAL THR VAL ASN

 $\overline{166}$ CIG LEO GGT ATC ACC GAA AAA GGT GGA TCT CCG CAT CAT ACC GCG CTG CGC CAG GCG ATT GLY ILE THR GLU LYS GLY GLY SER PRO HIS HIS THR ALA LEU ARG GLN ALA ILE ATC ILE PHE AAC TCC AAA TTC LYS SER SIS

SER GGC GAA CTG ATG ACC CTG GCG AAA GGA TCT CCG AAA TAT GTG AAA CAG AAC ACC CTG AAA CTG GCG ACC AAA GGA GLU LEU MET THR LEU ALA LYS GLY SER PRO LYS TYR VAL LYS GLN ASN THR LEU LYS LEU ALA THR LYS GLY GLY

FIG. 8A



CTG CTG ACC CGC ATT CTG ACC ATT CCG CAG TCT CTG GAT AAA GGC TAT TCT GGC CCG CTG AAA GCG GAA ATT LEU LEU THR ARG ILE LEU THR ILE PRO GLN SER LEU ASP LYS GLY TYR SER GLY PRO LEU LYS ALA GLU ILE

LYS ARG LEU GLU ASP VAL LYS GLY SER VAL SER ILE ASP LYS PHE ARG ILE PHE CYS LYS ALA ASN PRO LYS GIT ICC AIC GAC AAA IIC CGI AIC IIC IGC AAA GCI AAC CCG AAA GCG CAG CGC CTG GAA GAT GTG AAA GGA TCT GLN

ATC ILE GGT CTG AAA TTC ATC ATC AAA CGT TAC ACC CCG AAC AAC GAA ATC GAC TCC AAA GGT ATC CGT GAA GAC AAC AAC GLY LEU LYS PHE ILE LYS ARG TYR THR PRO ASN ASN GLU ILE ASP SER LYS GLY ILE ARG GLU ASP ASN ASN

ASN GTT TTC AAC SER VAL ACC CTG AAA CTG GAC CGT TGC AAC AAA GGT GAA AAG AAG ATC GCT AAA ATG GAA AAA GCT TCT TCT LYS GLY GLU LYS LYS ILE ALA LYS MET GLU LYS ALA SER LEU LYS LEU ASP ARG CYS ASN ASN

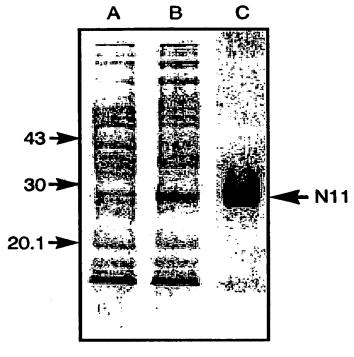
CAC CTG HIS LEU TCT AAA GGT TTC AAC AAC TTC ACC GTT TCC TTC TGG CTG CGT GTT CCG AAA GTT TCC GCT TCC SER LYS GLY PHE ASN ASN PHE THR VAL SER PHE TRP LEU ARG VAL PRO LYS VAL SER ALA SER GTT AAC VAL VAL ASN AAA GGT CAG TAC ATC AAA GCT AAC TCC AAA TTC ATC GGT ATC ACC GAA AAA GGT GGA TCT CCG CAT CAT ACC LYS GLY SILE LYS ALA GLN SER LYS PHE ILE GLY ILE THR GLU LYS GLY GLY SER PRO HIS HIS THR GAA AAA GGT GEO

TAT GTG AAA CAG AAC ALA ILE LEU CYS TRP GLY GLU LEU MET THR LEU ALA LYS GLY SER PRO LYS TYR VAL LYS GLN ASN CTG CGC CAG GCG ATT CTG TGC TGG GGC GAA CTG ATG ACC CTG GCG AAA GGA TCT CCG AAA GLN

LYS GLY CTG AAA CTG GCG ACC AAA GGA TCG TTT TTT CTG CTG ACC CGC ATT CTG ACC ATT CCG CAG TCT CTG GAT AAA LEU LYS LEU ALA THR LYS GLY SER PHE PHE LEU LEU THR ARG ILE LEU THR ILE PRO GLN SER LEU ASP LYS

# FIG. 8B







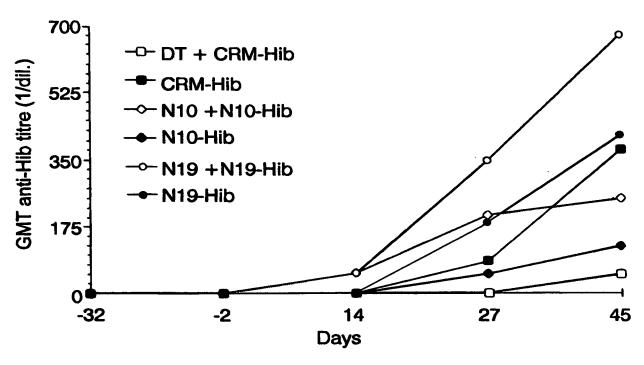
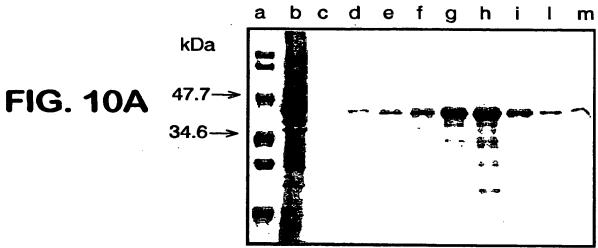


FIG. 13





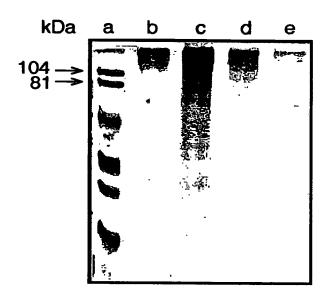
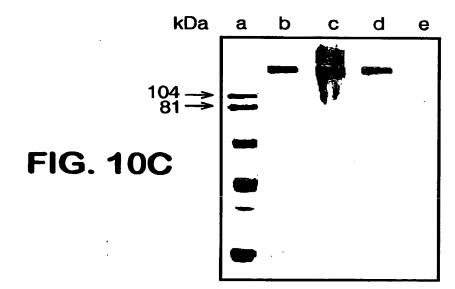


FIG. 10B





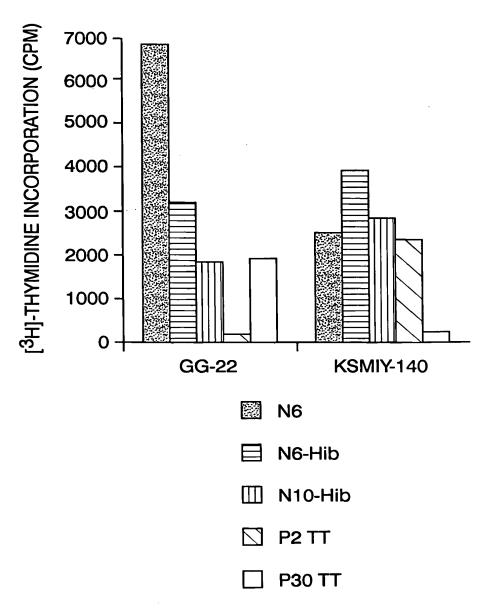
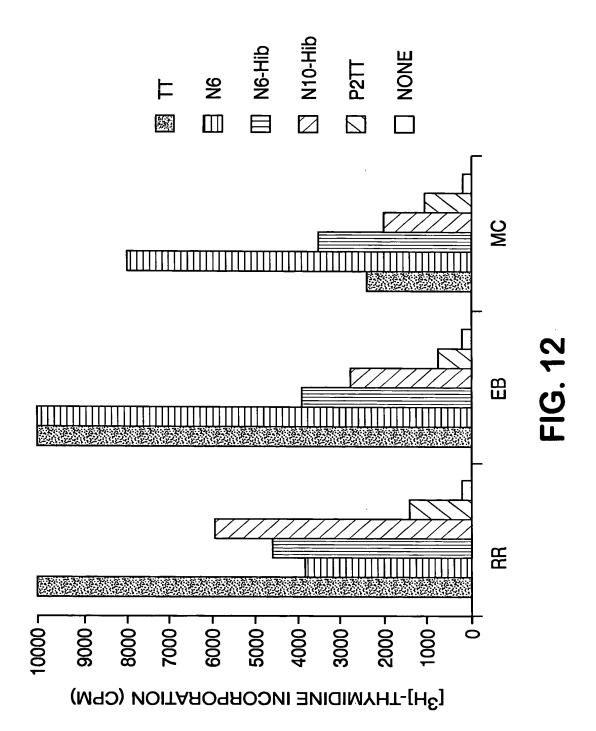


FIG. 11





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